UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

EDP Renewables North America LLC)
Complainant,)
)
V.)
)
PJM Interconnection, L.L.C.)
Respondent.)
)
)

Docket No. EL24-125-000

ANSWER OF PJM INTERCONNECTION, L.L.C.

PJM Interconnection, L.L.C. ("PJM"), pursuant to Rule 213 of the Federal Energy Regulatory Commission's ("Commission") Rules of Practice and Procedure,¹ submits this Answer to the Complaint filed by EDP Renewables North America LLC ("EDPR" or "Complainant") in the captioned proceeding.² EDPR has not shown that PJM's denial of its request for Surplus Interconnection Service violates the Federal Power Act ("FPA"), Order No. 845 and its progeny,³ or the PJM Open Access Transmission Tariff ("Tariff").⁴ The Commission should therefore deny the Complaint.

¹ 18 C.F.R. § 385.213.

² EDP Renewables North America LLC v. PJM Interconnection, L.L.C., Complaint of EDP Renewables North America LLC under Federal Power Act Section 206, Docket No. EL24-125-000 (July 5, 2024) ("Complaint").

³ Reform of Generator Interconnection Procedures and Agreements, Order No. 845, 163 FERC ¶ 61,043 (2018), order on reh'g and clarification, Order No. 845-A, 166 FERC ¶ 61,137, order on reh'g and clarification, Order No. 845-B, 168 FERC ¶ 61,092 (2019) (collectively, "Final Rule").

⁴ Terms not otherwise defined in this Answer shall have the meaning set forth in the Tariff.

At bottom, the Complaint would revise Order No. 845 to require PJM to accommodate Surplus Interconnection Service under a Project Developer's preferred circumstances, rather than under the Tariff's requirements. The Commission should not be swayed by this attempt. PJM's threshold evaluation of whether a Surplus Interconnection Service request should be granted is straightforward: Does the requested Surplus Interconnection Service materially impact the transmission system? If the answer is no, the request will be granted in accordance with the requirements of Tariff, Part VIII, Subpart E, section 414. If the answer is yes, the request will be denied. The Commission found this threshold analysis to be just and reasonable in accepting PJM's Order No. 845 compliance proposal,⁵ and PJM has consistently applied it on a nondiscriminatory basis to all requests for Surplus Interconnection Service, including EDPR's request. The Tariff and PJM Manuals make clear that this determination is made on an individual, rather than categorical, basis, and EDPR's attempts to characterize PJM's analysis as discriminatory toward certain categories of project configurations are As demonstrated below, PJM denied EDPR's request for Surplus unsupported. Interconnection Service at the Meadow Lake I Facility due to material impacts resulting from both the proposed configuration of the request and EDPR's proposal to operate its surplus generating facility. For these reasons, the Complaint should be denied.

⁵ See PJM Interconnection, L.L.C., 171 FERC ¶ 61,145, at P 34 (2020) ("Second Compliance Order").

I. BACKGROUND

A. Surplus Interconnection Service Requirements Under the Final Rule and PJM's Compliance Proceeding.

In Order No. 845, the Commission adopted changes to its *pro forma* Large Generator Interconnection Procedures ("LGIP") and Large Generator Interconnection Agreement to establish surplus interconnection service.⁶ Surplus interconnection service allows "a new interconnection customer to utilize the unused portion of an existing interconnection customer's interconnection service within specific parameters."⁷ The Final Rule required transmission providers to revise their tariffs to include surplus interconnection service, and to provide for an expedited interconnection process for such service outside of the interconnection queue.⁸ The Final Rule required transmission providers to "perform reactive power, short circuit/fault duty, and stability analyses studies as well as steady-state (thermal/voltage) analyses as necessary to ensure evaluation of all required reliability conditions to provide surplus interconnection service and ensure the reliable use of surplus interconnection service."⁹

PJM filed an initial compliance filing requesting an independent entity variation to depart from the requirement to process requests for Surplus Interconnection Service on an expedited basis using its existing single integrated interconnection queue process, rather than developing a standalone process.¹⁰ PJM also requested an independent entity

⁶ *PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,226, at P 87 (2019) (citing Order No. 845 at P 467) ("First Compliance Order").

⁷ See id. (citing Order No. 845 at P 467; Order No. 845-A at P 119).

⁸ See Order No. 845 at P 467.

⁹ First Compliance Order at P 87 (citing Order No. 845 at PP 455, 467).

¹⁰ *PJM Interconnection, L.L.C.*, Order Nos. 845 and 845-A Compliance Filing, Docket No. ER19-1958-000, at 2 (May 22, 2019).

variation to allow an Interconnection Customer to retain its queue position, if its Interconnection Request does not qualify for Surplus Interconnection Service, and proceed through the Interconnection Study Process as a zero megawatt ("MW") generator.¹¹

The Commission found that PJM's compliance filing partially complied with the requirements of the Final Rule but rejected PJM's requests for independent entity variations, holding that PJM had not provided sufficient justification to depart from the requirement to develop a standalone expedited process for Surplus Interconnection Service.¹² The Commission directed PJM to make a further compliance filing removing the proposed Tariff provisions associated with the independent entity variation request.¹³

In its second compliance filing, PJM proposed additional Tariff revisions detailing the requirements for Surplus Interconnection Service.¹⁴ Specifically, the proposed Tariff revisions clarified that "Surplus Interconnection Service cannot be granted if doing so would require new Network Upgrades or would have additional impacts affecting the determination of what Network Upgrades would be necessary to New Service Customers already in the New Services Queue or that have a material impact on short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response."¹⁵

¹¹ *See id.* at 3.

¹² First Compliance Order at PP 101-04.

¹³ First Compliance Order at P 107.

¹⁴ *PJM Interconnection, L.L.C.*, Order No. 845 Second Compliance Filing, Docket No. ER19-1958-002 (Feb. 21, 2020) ("Second Compliance Filing").

¹⁵ Tariff, section 36.1.1B. This language has been incorporated into PJM's recently implemented reformed interconnection process. Tariff, Part VIII, Subpart E, section 414(A).

Several parties objected to PJM's filing, arguing, in relevant part, that PJM failed to clarify the metrics to be analyzed in granting Surplus Interconnection Service.¹⁶ In response, PJM clarified that the Tariff provides that generation units requesting surplus interconnection service <u>cannot use any available system headroom</u> and therefore "*any* impact is the threshold to determine whether a surplus interconnection request is material."¹⁷ Citing PJM's reasoning, the Commission agreed, holding that "Order Nos. 845 and 845-A did not require transmission providers to provide such metrics in their tariffs."¹⁸ Thus, the Commission clearly understood that a determination of *any* impact to the transmission system would result in the rejection of a request for Surplus Interconnection Service.

PJM further detailed its requirements for Surplus Interconnection Service in Manual 14H, which includes examples of the types of requests for service that may be granted or rejected depending on whether the requests are expected to have material impacts to the transmission system.¹⁹ Manual 14H also provides specific criteria that PJM considers in determining whether a request is eligible for Surplus Interconnection Service, including "[t]he parallel/simultaneous versus independent (one at a time) operation of the existing and surplus unit, [which] affects the short circuit and stability material impacts."²⁰

¹⁶ See PJM Interconnection, L.L.C., Motion to Intervene and Comments of the American Wind Energy Association, Solar Energy Industries Association, and Solar Council, Docket No. ER19-1958-002, at 2 (Mar. 26, 2020).

¹⁷ Second Compliance Order at P 34.

¹⁸ Id. at P 38 (citing Order No. 845 at P 467; pro forma LGIP § 4.4.2(c)).

¹⁹ See Interconnection Project Department, *PJM Manual 14H: New Service Requests Cycle Process*, PJM Interconnection, L.L.C., section 12.1 (July 26, 2023), https://pjm.com/-/media/documents/manuals/m14h.ashx ("Manual 14H").

²⁰ Id. (emphasis added).

B. EDPR's Request for Surplus Interconnection Service at Meadow Lake I Facility.

EDPR's Meadow Lake I Facility is a wind farm that is interconnected to the PJM transmission system, with a Maximum Facility Output of 200 MW.²¹ In August 2023, EDPR submitted a Surplus Interconnection Service seeking to add solar generation to its existing wind generating facility.²² In its application, EDPR proposed to add 200 MW of solar generating capability to the existing 200 MW of wind generating capability "to be able to offer Meadow Lake I's Maximum Facility Output more often during off-peak hours," but not exceed the 200 MW Maximum Facility Output associated with its interconnection.²³

PJM reviewed EDPR's request in accordance with the requirements of Tariff, Part VIII, Subpart E, section 414, and concluded in March 2024 that the request could not be accommodated. After reviewing the materials provided with EDPR's Surplus Interconnection Service request, PJM confirmed that the request would result in material impacts to the transmission system. Specifically, PJM's analysis concluded that material impacts on the transmission system would result from (1) generation of additional fault current from simultaneous operation of both the wind and solar generating units; and (2) the addition of multiple inverters behind the Point of Interconnection to support the solar facility's panels, further exacerbating the additional fault current from simultaneous operation of both generating facilities. PJM determined that the additional fault current

²¹ See PJM Interconnection, L.L.C., Filing of Interconnection Service Agreement of PJM Interconnection, L.L.C., Docket No. ER09-1767-000 (Sept. 29, 2009); *PJM Interconnection, L.L.C.*, Letter Order, Interconnection Service Agreement with Meadow Lake Wind Farm, L.L.C., Docket No. ER09-1767-000 (Nov. 18, 2009).

²² See Complaint at 7.

²³ Complaint at Exhibit A.

(a "material impact on short circuit capability limits"²⁴) would occupy additional headroom on the transmission system, which must remain available to Project Developers seeking to interconnect new generation or merchant transmission already in the queue, along with Eligible Customers seeking long-term firm transmission service.²⁵ Based on these conclusions, PJM denied EDPR's request.

II. ANSWER TO COMPLAINT

A. PJM's Provision of Surplus Interconnection Service Is Consistent with the Commission's Objectives in the Final Rule.

The Complaint alleges that PJM "has sought to kill" Surplus Interconnection Service by adopting processes to prevent its use.²⁶ Citing the Commission's recent orders adopting changes to its standard surplus interconnection service requirements,²⁷ EDPR argues that PJM has "sought to frustrate anyone seeking to use Surplus Interconnection Service to realize their full interconnection capacity under their [Generation Interconnection Agreement]."²⁸ These allegations belie EDPR's fundamental misunderstanding of the Commission's intent in requiring transmission providers to adopt surplus interconnection service and PJM's obligation to ensure reliability on the transmission system.

²⁴ Tariff, Part VIII, Subpart E, section 414(A).

²⁵ See, e.g., Second Compliance Order at P 34; *PJM Interconnection, L.L.C.*, 178 FERC ¶ 61,089, at P 41 (2022); *Anbaric Dev. Partners v. PJM Interconnection, L.L.C.*, 171 FERC ¶ 61,241, at P 52 (2020).

²⁶ Complaint at 4-5.

²⁷ Complaint at 4; see Improvements to Generator Interconnection Procedures and Agreements, Order No. 2023, 184 FERC ¶ 61,054, limited order on reh'g, 185 FERC ¶ 61,063 (2023), order on reh'g & clarification, Order No. 2023-A, 186 FERC ¶ 61,199 (2024), appeals pending, Petition for Review, Advanced Energy United v. FERC, Nos. 23-1282, et al. (D.C. Cir. Oct. 6, 2023).

²⁸ Complaint at 9.

Rather than scheming to prevent customers from pursuing Surplus Interconnection Service, PJM's review of requests for service is consistent with the spirit of the Commission's regulations. The Final Rule defines Surplus Interconnection Service as "any *unneeded* portion of interconnection service."²⁹ In adopting this definition, the Commission specifically replaced the word "unused" with "unneeded,"³⁰ making clear that the objective of surplus interconnection service is "to increase utilization of existing, underutilized interconnection service."³¹ EDPR does not argue that its existing 200 MW wind farm is underutilized; it simply seeks to maximize the capability of its interconnection on a round-the-clock basis by adding a solar facility of equal size behind the same Point of Interconnection.³² Even so, the Tariff does not discourage EDPR or any Project Developer from exploring opportunities to generate at Maximum Facility Output in all hours. Analysis of Surplus Interconnection Service includes a simple, threepronged threshold: (1) are new Network Upgrades required? (2) does the request have additional impacts affecting the determination of what Network Upgrades would be necessary to New Service Customers already in the New Services Queue? and (3) is there a material impact on short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response?³³ If the answer to each of these questions is no, the request meets the definition of Surplus Interconnection Service, and will be granted. That EDPR's request to maximize the potential 24-hour capability of its

²⁹ Order No. 845 at P 467 (emphasis added); see pro forma LGIP § 1 (Definitions).

³⁰ Order No. 845 at P 459 n.800.

³¹ Order No. 845 at P 473 (emphasis added).

³² Complaint at Exhibit A.

³³ Tariff, Part VIII, Subpart E, section 414.

interconnection fails to meet these requirements does not render the Tariff at odds with the Commission's objectives for Surplus Interconnection Service under the Final Rule.³⁴

Nor does PJM's treatment of Surplus Interconnection Service requests run afoul of the Commission's recent clarifications regarding the provision of such service. EDPR claims that Order No. 2023 effectively prevents PJM from analyzing material impacts to the transmission system because such analysis constitutes a "material modification" review that should not be imparted onto Surplus Interconnection Service requests.³⁵ In attempting to persuade the Commission that PJM "conflates" the material modification analysis with its Surplus Interconnection Service review, it is EDPR that conflates two wholly distinct analyses. PJM defines a Material Modification as "any modification to a Generation Interconnection Agreement that has a material adverse effect on the cost or timing of Interconnection Studies related to, or any Distribution Upgrades, Network Upgrades, Stand Alone Network Upgrades or Transmission Owner Interconnection Facilities needed to accommodate, any Interconnection Request with a later Cycle."³⁶ In other words, a Material Modification analysis looks at the effect on other customers in the interconnection queue resulting from the change. By contrast, the Surplus Interconnection Service review looks at the effect on the transmission system resulting from the additional generation. While PJM does evaluate impacts to the transmission system as part of its Necessary Study review, those impacts do not constitute "Material Modifications" under the Tariff, as EDPR asserts.

³⁴ As explained in Section II.B, *infra*, EDPR's proposed configuration in its Surplus Interconnection Service request failed to meet these requirements.

³⁵ Complaint at 10, 13 (citing Order No. 2023 at P 1418).

³⁶ Tariff, Part VIII, Subpart A, section 400, Definitions M (emphasis added).

Moreover, the Commission in Order No. 2023 *expressly declined* to establish parameters on surplus interconnection service, finding that such clarifications were beyond the scope of the proceeding.³⁷ On rehearing, the Commission again declined to impose further parameters on surplus interconnection service, holding that its reform "solely modifies when an interconnection customer can submit a request for surplus interconnection service."³⁸ Thus, EDPR's assertion that PJM's Surplus Interconnection Service analysis runs contrary to the Commission's "conditions on the provision" of such service is meritless.

EDPR further argues that the Tariff and Manual 14H create a "difficult-to-use" process for Surplus Interconnection Service, and that PJM's sensitivities for material impacts are so low that no request will be accepted.³⁹ EDPR also claims that Manual 14H establishes *de facto* categorical denials⁴⁰ in its examples of eligible and ineligible requests. To the contrary, these examples are specifically intended to *assist* Project Developers in analyzing whether a proposed configuration of Surplus Interconnection Service will affect the transmission system. Moreover, the Tariff and Manual 14H make clear that "<u>all</u> Surplus Interconnection Requests will need to be studied in order to confirm that all the criteria for Surplus Interconnection Service are met," meaning that while the examples in Manual 14H are illustrative, each request is

³⁷ Order No. 2023 at PP 1442, 1447.

³⁸ Order No. 2023-A at P 560. PJM committed to submit Tariff changes to comply with this requirement in its May 16, 2024 compliance filing. *See PJM Interconnection, L.L.C.*, Order Nos. 2023 and 2023-A Compliance Filing of PJM Interconnection, L.L.C., Docket No. ER24-2045-000, at 65 (May 16, 2024).

³⁹ Complaint at 10.

⁴⁰ Complaint at 11.

studied and evaluated on an individual, rather than categorical, basis.⁴¹

Figure 1 below, taken from Manual 14H, provides an example of a request that satisfies the threshold criteria for Surplus Interconnection Service:

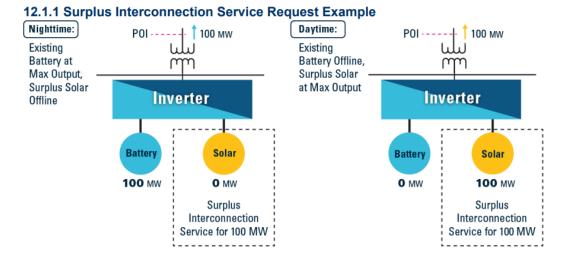


Figure 1

Like EDPR's request, the request in Figure 1 includes two generating facilities behind the same Point of Interconnection. However, as explained in Section II.B below, there are key differences between the two requests that cause EDPR's request to fail the threshold criteria, including EDPR's proposed simultaneous operation of the existing and surplus units. Manual 14H specifically provides that simultaneous operation of both the existing and surplus and surplus units can negatively affect eligibility for Surplus Interconnection Service.⁴²

While EDPR argues PJM's consideration of simultaneous operation is discriminatory,⁴³ the fact remains that *under EDPR's proposal*, simultaneous operation of

⁴¹ Manual 14H, section 12.1; *see also* Tariff, Part VIII, Subpart E, section 414(B) ("After receiving a valid Surplus Interconnection Study Agreement seeking Surplus Interconnection Service and the requisite deposit set forth in Tariff, Part VIII, Subpart E, section 414(A)(1)(j) from the Surplus Project Developer, the Transmission Provider *shall* conduct a Surplus Interconnection Study." (emphasis added)).

⁴² See Manual 14H, section 12.1.

⁴³ See Complaint at 12.

the wind and solar generating facilities would cause EDPR's facilities to occupy additional headroom on the transmission system, causing an impact. EDPR's choice of configuration for its Surplus Interconnection Service request that PJM cannot accommodate does not render the Tariff or Manual 14H discriminatory or inconsistent in any way with the Final Rule. The Complaint should therefore be denied.

B. PJM's Denial of EDPR's Request for Use of Surplus Interconnection Service at the Meadow Lake I Facility Was Consistent with the Final Rule and the Tariff.

Contrary to Complainant's assertions, PJM's denial of EDPR's Surplus Interconnection Service request was neither arbitrary nor inconsistent with the Final Rule.⁴⁴ As outlined above, PJM followed its Tariff in applying the threshold criteria to EDPR's request, concluded that the request would have resulted in material impacts to the transmission system, and therefore denied it. PJM's denial was not, as EDPR alleges, a categorical denial of its "simultaneously [operating]" configuration.⁴⁵ Rather, PJM identified two key elements of EDPR's proposal that, taken together, resulted in material impacts on the transmission system. EDPR's request was therefore properly rejected, and the Complaint should be denied.

First, EDPR's proposal to simultaneously operate its wind and solar generating facilities would result in "a material impact on short circuit capability limits."⁴⁶ Operating the facilities simultaneously under EDPR's proposed configuration would generate additional fault current on the transmission system. When the new solar inverters are energized simultaneously with the existing wind farm's turbines, the amount

⁴⁴ See Complaint at 7-8.

⁴⁵ Complaint at 8.

⁴⁶ Tariff, Part VIII, Subpart E, section 414(A).

of fault current generated on the transmission increases, which in turn increases the amount of available headroom the project would occupy.

Second, EDPR's proposal to add a solar generating facility behind the Point of Interconnection would require the addition of multiple inverters to support the project's solar panels. Each inverter causes some level of fault current on the transmission system. If the wind and solar facilities were operated simultaneously as proposed, generating additional fault current would be an inherent result due to the substantial increase in the number of additional inverters behind the Point of Interconnection.

Pointing to email communications with PJM, EDPR claims that PJM is "applying a discriminatory bar on simultaneous operation."⁴⁷ But this argument fails to account for a key piece of PJM's review, which took into account not only EDPR's proposed operation of its Surplus Interconnection Service unit, but also EDPR's proposed *configuration* of its facilities. When viewed as a whole, the proposal cannot satisfy PJM's threshold requirement; "material impact[s] on short circuit capability limits" are inevitable. Therefore, in accordance with its obligations under Tariff, Part VIII, Subpart E, section 414(A), PJM denied EDPR's request.

The Complaint fails to meet its burden to show that PJM failed to act in accordance with the Tariff or unduly discriminated against EDPR in denying its Surplus Interconnection Service request. The Complaint should therefore be denied.

⁴⁷ Complaint at 12.

III. ADMISSIONS AND DENIALS PURSUANT TO 18 C.F.R. § 385.213(c)(2)(i)

Pursuant to Rule 213(c)(2)(i) of the Commission's rules of Practice and Procedure,⁴⁸ PJM affirms that any allegation in the Complaint that is not specifically and expressly admitted above is denied.

IV. AFFIRMATIVE DEFENSES PURSUANT TO 18 C.F.R. § 385.213(c)(2)(ii)

PJM's affirmative defenses are set forth above in this answer, and include the

following, subject to amendment and supplementation.

1. EDPR, as the Complainant, has failed to satisfy its burden of proof under FPA section 206 (16 U.S.C. § 824e).

V. COMMUNICATIONS AND SERVICE

PJM requests that the Commission place the following individuals on the official

service list for this proceeding:⁴⁹

Craig Glazer Vice President–Federal Government Policy PJM Interconnection, L.L.C. 1200 G Street, N.W., Suite 600 Washington, D.C. 20005 (202) 423-4743 (phone) (202) 393-7741 (fax) craig.glazer@pjm.com Wendy B. Warren Elizabeth P. Trinkle Wright & Talisman, P.C. 1200 G Street, N.W., Suite 600 Washington, D.C. 20005 (202) 393-1200 (phone) (202) 393-1240 (fax) warren@wrightlaw.com trinkle@wrightlaw.com

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⁴⁸ 18 C.F.R. § 385.213(c)(2)(i).

⁴⁹ To the extent necessary, PJM requests a waiver of Commission Rule 203(b)(3), 18 C.F.R. § 385.203(b)(3), to permit more than two persons to be listed on the official service list for this proceeding.

VI. CONCLUSION

For the reasons set forth in this answer, the Commission should deny the Complaint.

Respectfully submitted,

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Attorneys for PJM Interconnection, L.L.C.

July 25, 2024

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C., this 25th day of July 2024.

/s/ Elizabeth P. Trinkle

Attorney for PJM Interconnection, L.L.C.